



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,473	11/02/2001	Xiaorong Wang	P00105US1A	5308

7590 08/19/2003

John H. Hornickel  
Chief I.P. Counsel  
Bridgestone/Firestone, Inc.  
1200 Firestone Parkway  
Akron, OH 44317

EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/002,473	WANG ET AL.	
	Examiner	Art Unit	
	Katarzyna Wyrozewski Lee	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on interview 8/14/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                     | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>0803</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                            | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0803</u> . | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to composition comprising thermoplastic elastomer, nylon grafted elastomer and extender, classified in class 525, subclass 191.
  - II. Claim 18, drawn to gasket, classified in class 277, subclass 590.
  - III. Claim 19, drawn to disk drive assembly, classified in class 360, subclass 135.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions for the following reasons. Present invention considering that it is a gel can be used as an adhesive or dampening medium. The gasket formed from gelled compositions can be utilized in automotive industry.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Art Unit: 1714

5. During a telephone conversation with Mr. Arthur Reginello on 8/14/2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18 and 19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

It is also examiner's position, that if the composition claims become in condition for allowance, providing the restricted claims contain all allowable subject matter or are made dependent on composition claim, the restricted claims can be rejoined upon applicant's request.

### *Claim Rejections - 35 USC § 112*

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Art Unit: 1714

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is rendered as indefinite claims since it contains an improper Markush language. According to MPEP 2173.05(h) the Markush language may recite for example: "...wherein R is selected from the group consisting of A, B, C and D" or "...wherein R is A, B, C or D".

*Claim Rejections - 35 USC § 102*

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 4-16 are rejected under 35 U.S.C. 102(e) as being anticipated by BRZOZOWSKI (US 6,300,418).

The prior art of BRZOZOWSKI discloses adhesive composition comprising thermoplastic elastomer, reaction product of polyamide and elastomer and extender oil.

The thermoplastic elastomer of BRZOZOWSKI includes styrene based elastomer such as SBS triblock, SIS, S-EB-S (col. 3, lines 50-67 and claim 3).

Art Unit: 1714

The reaction product of polyamide and elastomer is formed by first incorporating into elastomer functional units such as maleic anhydride or dicarboxylic acid and then reacting it with polyamide (col. 6, lines 47-59). According to example 1, the elastomer of BRZOZOWSKI contains about 1% (col. 10, line 60), 2% (line 63) of bound maleic anhydride. Claim 12 of BRZOZOWSKI further allows for 0.2-12 % of maleic anhydride functionality. The elastomer utilized includes EPDM rubber (Example VII, col. 12), SEBS (example IV, col. 11). Specification further enables use of SIS, EPM, SBS and the like (col. 5, lines 40-50).

The polyamide reacted with functionalized elastomer is nylon 6 (example 1). Claim 11 of BRZOZOWSKI further anticipates use of nylon 12, nylon 6,6 and nylon 4,6. The amount of the polyamide in the modified rubber component is 10-90 wt %.

The reacted elastomer, which is also referred to as adhesion promoter is utilized in an amount of 2-60 wt % (claim 1 of BRZOZOWSKI).

Extender oil of BRZOZOWSKI is taught in col. 7, line 46. Since the extender oils are all either aromatic, naphthenic, parafinic, the prior art of BRZOZOWSKI would read or either one of them.

The entire composition is formed by injection molding, co-extrusion or blow molding (col. 8, lines 62-65). Since the prior art of BRZOZOWSKI forms the article at elevated temperatures just as it is done in the present invention, then the components of BRZOZOWSKI are also mixed in solid state.

Although the prior art of BRZOZOWSKI does not state that the composition is gel, considering the fact that the components are the same, such property, which results from the components and its amounts, would have been inherent, since the reaction product would be the

Art Unit: 1714

same. In addition one would expect the composition to be gel-type composition since it is an adhesive.

In the light of the above disclosure, the prior art of BRZOZOWSKI anticipates requirements of claims rejected above.

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 1714

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 2, 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRZOZOWSKI (US 6,300,418) in view of WANG (US 5,994,468).

The discussion of the disclosure of the prior art of BRZOZOWSKI from paragraph 10 of this office action is incorporated here by reference.

The difference between the present invention and the disclosure of the prior art of BRZOZOWSKI is recitation of the amount of the extender oil and the type of the extender oil.

With respect to the above difference, the prior art of WANG discloses composition comprising nylon-grafted polymers, which are styrene based polymers (see claims) in order to form gel.

The composition of WANG utilizes extenders utilized in an amount sufficient to form a gel (claim 1). The extenders of WANG are oils, which include low molecular weight compounds, such as naphtheic oil, aromatic oil, parafinic oil and silicon oils (col. 6, lines 38-41). The amount of the extender oils is 30-1000 parts per 100 parts of the grafted polymer (col. 7, lines 21-30).

The extender oils of WANG are utilized in order to form soft materials, which can added into the composition and molded into a desired articles.




Art Unit: 1714

In the light of the above disclosure it would have been obvious to one having ordinary skill in the art at the time of the instant invention to add the same amount of the extender oil into the composition of BRZOSOWSKI, since the composition of BRZOSOWSKI is also a soft type composition comprising the same elastomer and the same grafter polymer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (703) 306-5875. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
KIWL

8/14/2003